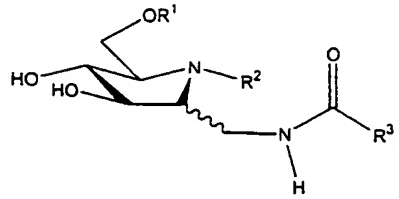
What is claimed is:

1. An inhibitor of hexoaminidase or glycosidase represented by the following structure:



wherein:

R^1 is selected from the group consisting of hydrogen, sulfate, and methyl sulfate;

R^2 is selected from the group consisting of hydrogen, methyl, ethyl, and a branched or unbranched hydrocarbon having between 3 and 8 carbons; and

R^3 is a hydrocarbon having between 1 and 50 carbon atoms.

2. An inhibitor according to claim 1 wherein R^1 is hydrogen; R^2 is selected from the group consisting of hydrogen, methyl, ethyl, and a branched or unbranched hydrocarbon of between 3 and 8 carbon atoms; and R^3 is a hydrocarbon having between 1 and 20 carbon atoms.

3. An inhibitor according to claim 2 where R^3 is a hydrocarbon having between 1 and 8 carbon atoms.

4. An inhibitor according to claim 3 where R^3 is methyl.

5. An inhibitor according to claim 1 where R^1 is a sulfate group; R^2 is hydrogen, methyl, ethyl or any branched or unbranched hydrocarbon of between 3 and 8 carbon atoms; R^3 is a hydrocarbon group that has between 1 and 20 carbon atoms.

6. An inhibitor according to claim 5 where R^3 is a hydrocarbon group possessing between 1 and 8 carbon atoms.

7. An inhibitor according to claim 6 where R^3 is methyl.

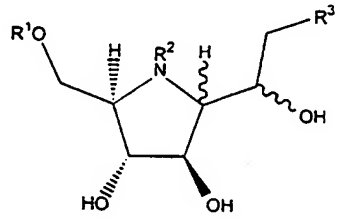
8. An inhibitor according to claim 1 where R^1 is a methyl sulfate group; R^2 is selected from the group consisting of hydrogen, methyl, ethyl, and a branched or unbranched hydrocarbon of between 3 and 8 carbon atoms; R^3 is a hydrocarbon having between 1 and 20 carbon atoms.

9. An inhibitor according to claim 8 where R^3 is a hydrocarbon having between 1 and 8 carbon

atoms.

10. An inhibitor according to claim 9 where R^3 is methyl.

11. An inhibitor of hexoaminidase or glycosidase represented by the following structure:



wherein:

R^1 is selected from the group consisting of hydrogen, sulfate, and methyl sulfate;

R^2 is selected from the group consisting of hydrogen, methyl, ethyl, and a branched or unbranched hydrocarbon having between 3 and 8 carbons; and

R^3 is selected from the group consisting of hydroxyl and -NHC(O)R^4, wherein R^4 is a hydrocarbon having between 1 and 50 carbon atoms.

12. An inhibitor according to claim 11 where R^1 is hydrogen; and R^4 is a hydrocarbon having between 1 and 20 carbon atoms.

13. An inhibitor according to claim 12 wherein R^4 is a hydrocarbon having between 1 and 8 carbon atoms.

14. An inhibitor according to claim 13 wherein R^4 is methyl.

15. An inhibitor according to claim 11 wherein R^1 is sulfate; and R^4 is a hydrocarbon having between 1 and 20 carbon atoms.

16. An inhibitor according to claim 15 wherein R^4 is a hydrocarbon having between 1 and 8 carbon atoms.

17. An inhibitor according to claim 16 wherein R^4 is methyl.

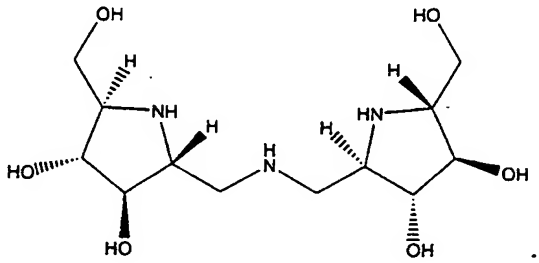
18. An inhibitor according to claim 11 wherein R^1 is methyl sulfate; and R^4 is a hydrocarbon having between 1 and 20 carbon atoms.

19. An inhibitor according to claim 18 where R^4 is a hydrocarbon having between 1 and 8

carbon atoms.

20. An inhibitor according to claim 9 where R^4 is methyl.

21. An inhibitor of hexoaminidase or glycosidase represented by the following structure:



22. A process for inhibiting a catalytic activity of a hexoaminidase or glycosidase comprising the step of contacting the hexoaminidase or glycosidase with an inhibitor selected from claims 1, 11, and 21 of sufficient concentration for inhibiting said hexoaminidase or glycosidase.

23. A process for treating a subject having arthritis comprising the step of administering an inhibitor selected from claims 1, 11, and 21 to said subject of sufficient quantity for inhibiting hexoaminidase activity within said patient.